

Junior Refuge Manager Activity Booklet

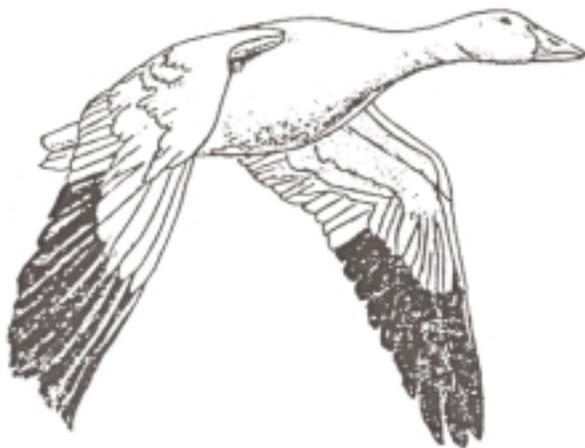
*Chincoteague National
Wildlife Refuge*

Ages 8 through 10



Chincoteague National Wildlife Refuge was established in 1943 by the U.S. Fish and Wildlife Service with monies from the sale of Federal Duck Stamps. The refuge was set aside primarily to protect migratory birds, with emphasis on the greater snow goose; however, the refuge has expanded its mission to: conserve native plants and wildlife; protect threatened and endangered species; and, provide people with educational, interpretive, and recreational programs.

Chincoteague National Wildlife Refuge is one of more than 520 refuges in the National Wildlife Refuge System—the most extensive network of lands and waters in the world that is set aside specifically for fish, wildlife and plants. President Theodore Roosevelt designated the first national wildlife refuge, a tiny sanctuary in the State of Florida called Pelican Island, in 1903. Since then, the refuge system has expanded to include refuges that range in size from a half of an acre to millions of acres!



Earning Your Junior Refuge Manager Patch

After you complete the activities in this booklet, return to the Chincoteague Refuge Visitor Center. A staff member or volunteer will review your answers with you, sign your booklet, and award you a patch. Please bring your booklet into the visitor center no later than one hour before closing time to receive your patch.

Note to adult companions: This is a family activity. Your assistance is needed; however, please allow the youths to answer the questions in their own words.



Managing a National Wildlife Refuge takes a lot of work to protect wildlife. Refuge staff learn about a variety of subjects to help both the public and wildlife. Would you like to work at a National Wildlife Refuge? Perhaps you can become a biologist, an environmental educator, or even a refuge manager. First, you must learn about wildlife, their habitat, and how to protect them. You can start today by completing this booklet, respecting wildlife, and helping keep the environment clean.

Think of some ways the refuge is helping wildlife that you have seen, read about, or learned from a program?

Think of some ways you can help wildlife and the environment.

Think of some things that can hurt wildlife and the environment and write down what you can do to stop it.

6. Is there enough space for all the animals in this habitat to live or are they crowded together? (Note: Some waterfowl gather in large flocks and may appear cramped. In this case, does the flock have enough space to move?)

Draw a picture of the habitat you chose including where an animal would find food, water, and shelter.

Woodland Scavenger Hunt

Explore the Woodland Trail. Please do not remove anything from the forest (unless it's litter!). Place a check next to each item found.

1. Chewed up pine cone
The endangered Delmarva fox squirrel loves to feed on pine cones.



2. Scat
Scat is another word for animal droppings. What animal do you think this scat is from?

3. Squirrel nest box
They're attached to pine trees. The endangered Delmarva fox squirrel prefers to nest in tree cavities. The refuge provides these boxes to help them find a good nesting site. What number is painted on the box?

4. A piece of litter
Pick it up and throw it away in a marked garbage container.



5. An insect
Insects are an important part of the food chain.

6. A leaf (not a pine needle)
Hardwood trees lose their leaves in autumn. These trees are called deciduous trees.



7. A bird singing
Birds sing to find mates and defend their territories. Can you think of words to go along with its song? For example, the rufous-sided towhee, a sparrow-like bird, sounds like it's singing "drink your tea."

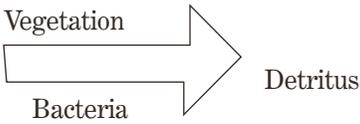
8. Lichens
Lichens are part fungus and part algae. They can be found growing on rocks and the sides of trees. The presence of lichens indicates a healthy ecosystem and clean air.

9. An exotic plant or animal
An exotic plant or animal is one that did not originally exist in this habitat. Examples include sika elk and the European starling.

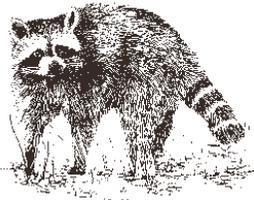
The Salt Marsh Mesh

Grasses are the most common plants in many salt marshes. These grasses are the building blocks of the salt marsh food web, providing lots of food for marsh critters. However, most marsh animals, such as some insects and crabs, cannot digest the tough plant material. When the grass dies, bacteria break down the dead leaves and stems through a process known as decomposition. The left over decomposed matter is then available to other animals in a form they can eat. This decomposed vegetation, along with tiny bits of animal remains, is called detritus. Crabs, fish, mussels, clams, and many other animals feed on detritus. In turn, they eventually become food for other animals and the food web begins.

Begin with detritus and connect each plant or animal to what eats it. More than one animal can feed on the same thing.



Grass shrimp



Raccoon



Bullhead



Blue crab



Great blue heron



Clam



Mosquito larva

Endangered Means There's Still Time

A plant or animal that has become extinct means there are none left — gone forever. The Endangered Species Act keeps plants and animals from disappearing. A plant or animal with low and declining population numbers may be placed on the Endangered Species List as either “threatened” or “endangered.” An organism classified as “endangered” is one that is in immediate danger of becoming extinct. A “threatened” species is one with dangerously low population numbers and without protection could become endangered.

Biologists at Chincoteague National Wildlife Refuge help protect and manage some threatened and endangered species including the piping plover and the Delmarva fox squirrel. Why do we need to protect endangered and threatened species?

*Endangered species are slipping away.
We have to make sure they're here to stay.*

*Eagles, falcons, and pelicans, too
Have all been saved by people like you.*

*Some people wonder why we should care
Why save something just cause it's rare?*

*Save them to keep the food web together:
Save them if it makes you feel better.*

*Save them because they're nice to see.
Save them because they have a right to be.*

*How would you feel if you were pushed out of the way?
Your home taken — with nowhere to stay.*

*Or poisoned by chemicals from food that you ate
We must stop this nonsense before it's too late.*

Finish the next two lines of the poem explaining how you feel about endangered species or why they're important to protect.



Piping plover

Island Natives

All of the plants and animals listed below are native to Chincoteague National Wildlife Refuge. Native means that they were present before the settlers arrived on the island. Place the number from column B next to the description in column A that correctly identifies it.

Column A

- Most common tree on the refuge.
- Insect that feeds on the inner bark of trees.
- This mammal raises its tail when alarmed—revealing its white underside.
- The green head of the drake (male) will help you identify this duck.
- White wading bird that uses its yellow feet as bait to attract fish.
- Relative of ticks and spiders, its eggs help feed the shorebirds on their migration.
- Snake that has an upturned snout. If frightened, he may flip on his back and play “dead.”
- An amphibian whose call sounds like a baby crying.

Column B

1. mallard
2. loblolly pine
3. hognose snake
4. Fowler’s toad
5. horseshoe crab
6. white-tailed deer
7. snowy egret
8. southern pine beetle



Refuge Riddles

Use the list of clues and word bank below to determine what animal I am.

1. I can reach speeds of up to 200mph on a dive.
I prefer to nest on cliffs but can use bridges and tall buildings instead.
I used to be an endangered species.
-

2. I am an endangered species.
I have a very bushy tail.
I like to eat pine cones.
-

3. I am a bird of prey.
My head turns white when I am about four to five years old.
I am the National Symbol.
-

4. I am an oriental species.
I keep my spots all my life.
I have a white rump patch.
-

5. I am a waterfowl species.
I arrive in the winter.
I migrate in a large flock.
-

6. I am a small bird that nests on the beach.
I am a threatened species.
I arrive in the spring.
-



piping plover, bald eagle, peregrine falcon, Delmarva fox squirrel, snow goose, sika elk

This certifies that

has successfully completed the

***Junior Refuge
Manager Program***

at

***Chincoteague National
Wildlife Refuge***

Signed

Date

Chincoteague National Wildlife Refuge
P.O. Box 62
Chincoteague, Virginia 23336-0062
Telephone: 757/336 6122
Fax: 757/336 5273
Email: FW5RW_CNWR@fws.gov
<http://www.chinco.fws.gov>

U.S. Fish & Wildlife Service
1/800/334 WILD
<http://www.fws.gov>

February 2001

